**Find the Speed Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Time | Distance | |  | Difference in Distance | Difference in Time | Slope (m) |
| x | y | | (x,y) | a | b |  |
| 0.25 or \_\_\_\_\_\_\_\_ |  | |  | \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* | \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| 0.5 or \_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 0.75 or \_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 1 or \_\_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 1.25 or \_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 1.5 or \_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 1.75 or \_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 2 or \_\_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
| 2.25 or \_\_\_\_\_\_\_\_\_\_ |  | |  |  | 0.25 |  |
|  |  | |  |  |  | **Total Slope**  Add up all the slopes: |
|  |  | |  |  |  |
|  | |  | | | | Divide total slope by 8 for the average slope  **Average Slope:**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

What is neat is that the average slope you found is the same as meters per second. We can use this and some conversions to find out how fast you were going in miles per hour.

1. Before we calculate this, how fast do you think you are in miles per hour? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Write the equation of the line using the average slope and the y-intercept of 0. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is your speed in miles per hour? miles/hour
2. Is this what you expected? Why or why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Additional Note:** The speed you found in number 2 is the slope you are going to use to write the equation of the line on the **BLUE** sheet.